

IN THE CLAIMS:

Kindly amend the claims, as follows:

1. - 40. (Canceled).

41. (New) A method of determining block formats to be used to transmit blocks of data from a transmitter to a receiver over a channel subject to fading, the method comprising:

measuring a reception-quality of data received by the receiver over the channel from the transmitter;

monitoring a measure of the rate of change of the reception-quality of data received by the receiver over the channel from the transmitter; and

if the measure of the rate of change of the reception-quality indicates that measurements of the reception-quality are being obtained and provided to the transmitter fast enough so that each measurement of reception-quality is a reasonably accurate estimate of the reception-quality at which the receiver will receive the next block to be transmitted, then determining a format for the next block to be transmitted by the transmitter to the receiver using the most recent measurement of reception-quality provided to the transmitter, but otherwise, determining a format for the next block to be transmitted by the transmitter to the receiver using an average of a portion of the reception-quality measurements received by the receiver over the channel from the transmitter.

42. (New) The method of claim 41, wherein the measure of the rate of change of the reception-quality of data transmitted over the channel from the transmitter to the receiver is determined periodically, but with a different period or phase than measurements of reception-quality of data transmitted over the channel from the transmitter to the receiver are made.

43. (New) The method of claim 41, wherein the channel is a wireless channel, the receiver is a subscriber station, and the transmitter is a base station.

44. (New) The method of claim 41, wherein the reception-quality measurements used to determine the average are sorted into portions by magnitude and one of the portions so determined is used to determine the average.

45. (New) The method of claim 44, wherein the sorted portion used to determine the average is the portion having the lowest magnitudes.

46. (New) The method of claim 41, wherein the measure of the rate of change of the reception-quality is determined from a sequence of reception-quality measurements.

47. (New) The method of claim 46, wherein the measure of the rate of change of the reception-quality is determined by finding the frequency spectrum of the sequence of reception-quality measurements.

48. (New) The method of claim 41, wherein the measure of the rate of change of the reception-quality is determined from the rate at which the receiver is requesting retransmissions over the channel from the transmitter.

49. (New) The method of claim 41, wherein each reception-quality measurement is mapped to a set of transmit-control bits using a quantization mapping, each set of transmit-control bits is transmitted from the receiver to the transmitter in a slotted frame of data, and each transmit-control bit is carried in a discrete slot of the frame.

50. (New) The method of claim 49, wherein there are five transmit-control bits in the set of transmit-control bits, four of which are quantized data bits and the fifth bit is a parity bit generated by XORing the four data bits together, and wherein the slotted frame has 15 slots.

51. (New) The method of claim 50, wherein the five transmit-control bits in the set of transmit-control bits are distributed among the 15 slots of the frame in the following manner:

X/T/M0/M1/T/M2/M3/T/P4/X/T/X/X/T/X,

in which slashes delimit slots, T represents a transmit power control bit used to control the power used by the transmitter to transmit a dedicated channel to the receiver, M0-M3 represent the quantized data bits, P4 represents the parity bit, and X represents a reserved bit.

52. (New) An apparatus operable to transmit blocks of data in frames to a plurality of subscriber stations over a shared channel subject to fading, comprising:

a base station configured to receive from at least one of the subscriber stations over a dedicated channel both:

(a) a measurement of reception-quality of each frame of data received over the shared channel by that subscriber station, and

(b) a periodically transmitted average of a portion of a series of measurements of the reception-quality of frames of data received over the shared channel by that subscriber station,

wherein the base station is configured to determine a measure of the rate of change of the measurements of reception-quality of the frames of data received over the shared channel by that subscriber station and, if the measure of the rate of change of the reception-quality indicates that measurements of the reception-quality are being obtained and provided to the base station fast enough so that each measurement of reception-quality is a reasonably accurate estimate of the reception-quality at which the subscriber station will receive the next block to be transmitted to it, then determining a format for the next block to be transmitted by the base station to that subscriber station using the most recent measurement of reception-quality received by the base station, but otherwise, determining a format for the next block to be transmitted by the base station to that subscriber station using the average received from that subscriber station.

53. (New) The apparatus of claim 52, wherein the measure of the rate of change of the reception-quality of frames of data transmitted over the shared channel from the base station to the subscriber station is determined periodically, but with a different period or phase than measurements of reception-quality of frames of data transmitted over the shared channel from the base station to the subscriber station are made.

54. (New) The apparatus of claim 52, wherein the reception-quality measurements used to determine the average are sorted into portions by magnitude and one of the portions so determined is used to determine the average.

55. (New) The apparatus of claim 52, wherein the sorted portion used to determine the average is the portion having the lowest magnitudes.

56. (New) The apparatus of claim 52, wherein the measure of the rate of change of the reception-quality is determined by finding the frequency spectrum of a sequence of reception-quality measurements.

57. (New) The apparatus of claim 52, wherein the measure of the rate of change of the reception-quality is determined from the rate at which the subscriber station is requesting retransmissions over the shared channel from the base station.

58. (New) The apparatus of claim 52, wherein each reception-quality measurement is mapped to a set of transmit-control bits using a quantization mapping, each set of transmit-control bits is transmitted from the subscriber station to the base station over a dedicated channel in a slotted frame of data, and each transmit-control bit is carried in a discrete slot of the frame.

59. (New) The apparatus of claim 58, wherein there are five transmit-control bits in the set of transmit-control bits, four of which are quantized data bits and the fifth bit is a parity bit generated by XORing the four data bits together, and wherein the slotted frame has 15 slots.

60. (New) The apparatus of claim 59, wherein the five transmit-control bits in the set of transmit-control bits are distributed among the 15 slots of the frame in the following manner:

X/T/M0/M1/T/M2/M3/T/P4/X/T/X/X/T/X,

in which slashes delimit slots, T represents a transmit power control bit used to control the power used by the base station to transmit a dedicated channel to the subscriber station, M0-M3 represent the quantized data bits, P4 represents the parity bit, and X represents a reserved bit.